

FRST - Frostbite

FRST-C COMPLICATIONS

OUTCOME: The patient/family will understand the complications associated with frostbite.

STANDARDS:

1. Explain that frostbitten tissue is very susceptible to infections.
2. Review the symptoms of a generalized infection, e.g., high fever, swelling or oozing, spreading redness, red streaking, increased tenderness/pain, changes in mental status, decreased urine output.
3. Review the effects of uncontrolled frostbite or wound infections (e.g., cellulitis) or generalized infection, e.g., loss of appendage, skin grafting.
4. Explain that scarring and/or tissue discoloration is common after healing of frostbite.
5. Emphasize the importance of early treatment to prevent complications.
6. Emphasize the importance to avoid thawing and then refreezing the injury. This is very dangerous and can cause serious consequences.

FRST-CUL CULTURAL/SPIRITUAL ASPECTS OF HEALTH

OUTCOME: The patient/family will understand the impact and influences cultural that spiritual traditions, practices, and beliefs have on health and wellness.

STANDARDS:

1. Explain that traditional medicines/treatments should be reviewed with the healthcare provider to determine if there are interactions or contraindications with the condition or prescribed treatment.
2. Explain that the medical treatment plan must be followed as prescribed to be effective and that some medications/treatments take time to demonstrate effectiveness.
3. Discuss that traditional remedies, such as sweat lodges, may affect some conditions in detrimental ways.

FRST-DP DISEASE PROCESS

OUTCOME: The patient/family will understand how frostbite occurs, the signs and symptoms of frostbite, and the risk factors associated with frostbite.

STANDARDS:

1. Explain that frostbite, simply defined, is the freezing of the skin and/or the bodily tissues under the skin.
2. Discuss the pathophysiology of frostbite: the fluids in the body tissues and cellular spaces freeze and crystallize. This can cause damage to the blood vessels and result in blood clotting and lack of oxygen to the affected area.
3. Explain that frostbite can occur in a matter of minutes and the most common parts of the body affected by frostbite include the hands, feet, ears, nose, and face. Discuss that frostbite is just like receiving a burn; and is categorized based upon the extent of the tissue injury.
 - a. First Degree: is a partial freeze of the skin. Clinical Appearance: Redness, swelling, possible peeling of skin about a week later. Symptoms: Periodic burning, stinging, aching, throbbing; excessive sweating in the area.
 - b. Second Degree: All layers of the skin have frozen. Clinical Appearance: Redness, significant swelling, blisters, black scabs. Symptoms: Numbness, heaviness of the affected area.
 - c. Third Degree: Skin and subcutaneous tissues are completely frozen. Clinical Appearance: Purplish blisters (blood-filled), dusky blue skin discoloration, death of the skin. Symptoms: Loss of sensation, area feels like "wood." Later on, the area has significant burning and throbbing.
 - d. Fourth Degree: Complete involvement of skin, fat, muscle, bone. Clinical Appearance: Minimal swelling. The area is initially quite red, then becomes black. Symptoms: Occasional joint pain.
4. Explain that the following conditions predispose to frostbite:
 - a. Exposure of the body to cold temperature, high altitude, humidity, and wind-chill
 - b. Wearing wet clothing and shoes
 - c. Ingestion of alcohol and other drugs

FRST-FU FOLLOW-UP

OUTCOME: The patient/family will understand the importance of follow up care.

STANDARDS:

1. Discuss the importance of obtaining and keeping follow up appointments.
2. Discuss the procedures for obtaining follow up appointments.

FRST-HPDP HEALTH PROMOTION, DISEASE PREVENTION

OUTCOME: The patient will understand the lifestyle changes necessary to promote and sustain healthy living.

STANDARDS:

1. Explain that health and wellness refers to whole person (mind, body, and spirit) and is a positive state which results from healthy choices.
2. Explain healthy lifestyle choices (e.g., spirituality, social connections, exercise, nutrition) and avoidance of high-risk behaviors (e.g., smoking, alcohol and substance abuse, sex with multiple partners). Discuss the benefits of a healthy lifestyle.
3. Discuss wellness as an individual responsibility to:
 - a. Learn how to be healthy.
 - b. Be willing to change.
 - c. Practice new knowledge.
 - d. Get help when necessary.
4. Review the community resources available for help in achieving behavior changes.

FRST-L LITERATURE

OUTCOME: The patient/family will receive literature about frostbite.

STANDARDS:

1. Provide the patient/family with literature on frostbite and prevention of frostbite.
2. Discuss the content of the literature.

FRST-M MEDICATIONS

OUTCOME: The patient/family will understand the use of medications to manage frostbite.

STANDARDS:

1. Describe the name, strength, purpose, dosing directions, and storage of the medication.
2. Discuss the benefits and common or important side effects of the medication and follow up as appropriate.
3. Discuss any significant drug/drug, drug/food, and alcohol interactions, as appropriate.
4. Discuss the importance of keeping a list of all current prescriptions and over-the-counter medicines, vitamins, herbs, traditional remedies, and supplements. Encourage the patient to bring this list and pill bottles to appointments for medication reconciliation

FRST-P PREVENTION

OUTCOME: The patient/family will understand ways to prevent frostbite.

STANDARDS:

1. Discuss with the patient/family that the majority of frostbite cases are preventable, and that it is easier to prevent frostbite than to treat it.
2. Discuss that it is important to wear dry, loose, layered, wind proof clothing (e.g., hat, gloves, loosely fitting layered clothing).
3. Discuss the importance to stocking the vehicle appropriately for winter travel (e.g., blankets, gloves, hats, water).
4. Discuss that remaining physically active can significantly reduce the risk of suffering from frostbite.
5. Review the sensations of early signs of frostbite, e.g., sensations of intermittent stinging, burning, throbbing, and aching are all early signs of frostbite. Get indoors.
6. Explain that the following people are at greater risk to frostbite, as appropriate:
 - a. The elderly and young
 - b. Persons with circulation problems
 - c. Those with a history of previous cold injuries
 - d. Those who ingest particular drugs, e.g., alcohol, nicotine and beta-blockers
 - e. Persons from warm climates

FRST-PM PAIN MANAGEMENT

OUTCOME: The patient/family will understand how to manage the pain associated with frostbite.

STANDARDS:

1. Explain that pain management is specific to the disease process of this particular diagnosis and patient and may be multifaceted. **Refer to PM.**
2. Explain that medications may be helpful in pain management.
3. Discuss non-pharmacological measures that may be helpful with pain control, e.g., warm or cool packs.

FRST-TX TREATMENT

OUTCOME: The patient/family will understand the management and treatment of frostbite.

STANDARDS:

1. Discuss the goal of treatment; prevention of further exposure to affected area(s), management and prevention of complications.
2. Emphasize that it is optimal to have frostbite injuries re-warmed under medical supervision.
3. Explain that the patient needs to stay warm after thawing. Refreezing can cause more severe tissue damage.
4. Review proper thawing process:
 - a. Use warm-to-the touch water 100°F (38°C) for 30–45 minutes until a good color (flush) has returned to the entire area. Emphasize that this process may be painful, especially the final few minutes.
 - b. Leave the blisters intact. Cover with a sterile or clean covering if protection is needed to prevent rupturing of blisters.
 - c. Keep the affected part(s) as clean as possible to reduce the risk of infection.
 - d. Keep the affected area elevated above the level of the heart.
5. Emphasize the importance of having a current tetanus booster.
6. Review treatment modalities that are not deemed appropriate methods to treat frostbite:
 - a. Don't use dry heat (sunlamp, radiator, heating pad) to thaw the injured area.
 - b. Don't thaw the injury in melted ice.
 - c. Don't rub the area with snow.
 - d. Don't use alcohol, nicotine, or other drugs that may affect blood flow.

FRST-WC WOUND CARE

OUTCOME: The patient/family will understand the necessity and procedure for proper wound care.

STANDARDS:

1. Explain the reasons to care appropriately for the wound, e.g., decreased infection rate, improved healing.
2. Explain and demonstrate the correct wound-care techniques.
3. Explain signs or symptoms that should prompt immediate follow-up, e.g., increasing redness, purulent discharge, fever, increased swelling/pain.
4. Detail the supplies necessary for the care of this wound (if any) and how/where they might be obtained.

5. Emphasize the importance of follow-up.